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## **Mental Health in Oldest-Old Adults: An Investigation of Self-Transcendence**

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**MENTAL HEALTH IN OLDEST-OLD ADULTS:  
AN INVESTIGATION OF SELF-TRANSCENDENCE**

**By**

**Marsha Luchtman Harrison**

**A THESIS**

**Submitted to  
Grand Valley State University  
in partial fulfillment of the requirements for the  
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## **ABSTRACT**

### **MENTAL HEALTH IN OLDEST-OLD ADULTS: AN INVESTIGATION OF SELF-TRANSCENDENCE**

**By**

**Marsha Luchtman Harrison**

**This study explored Reed's theory of self-transcendence as a potential developmental resource and correlate of well-being within the long term care population. Self-transcendence is a healthy maturation process of expanding one's conceptual boundaries inwardly through increased self-understanding; outwardly through investing in relationships with others and the environment; and/or temporally by integrating perceptions of one's past and future in a way that enhances the present. A descriptive correlational research design examined the level of self-transcendence and the relationship of self-transcendence to depression among nursing home residents. The sample of 51 oldest-old adults ranged from 80 to 103 years old.**

**Participants were interviewed using five survey instruments. Inferential statistics and correlational analysis demonstrated high self-transcendence and an inverse relationship between self-transcendence and depression. Concurrent high levels of depression may indicate the need for nursing homes to actively facilitate expansion of self-boundaries in residents in order for them to experience well-being.**

## Dedication

This thesis is dedicated in memory of my father, Karl E. Luchtman, who was much wiser than his years and taught me to embrace diversity and to value education; and in memory of my grandmother, Theresa Nilan, my first mentor in faith, caring and how to age with grace. Their spirits are still very much alive. It is through them that I have developed my philosophy of aging, which is expressed so succinctly in the following quotation:

“Old age is not a disease;  
It’s not a social disaster;  
It’s a gift of the Almighty.”

Maggie Kuhn  
Cornell University, 1977

## **Acknowledgments**

**God has blessed me with the steadfast presence of family, friends and several faculty at Grand Valley State University. Without their patience, love and encouragement this project may never have been completed.**

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**Last but not least, I would like to thank the nursing home staff and especially all of the residents who participated in this study. To these special older adults I will be forever indebted.**

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## CHAPTER 1

### INTRODUCTION

Nurses working with the growing population of older adults, especially those in long term care settings, are challenged by the complexity of their physical, mental and social care needs. According to Hooyman and Kiyak (1996), the population aged 85 and older, often referred to as the “oldest-old,” has grown more rapidly than any other age group in the United States. From 1960 to 1990, the number of people over 85 years old has increased by 300%. Estimates are that the oldest-old population will be 4.6 million in 2000 and over 8 million by 2030. Predictions about changes in chronic disease morbidity and mortality rates vary (Suzman, Willis, & Manton, 1992). Today, almost 25% of the oldest-old live in an institutionalized setting (Hooyman & Kiyak, 1996).

Oldest-old adults in long term care settings are a vulnerable population. Medical co-morbidities and multiple personal and social losses often combine to jeopardize their mental health (Evans, Buckwalter, & Fulmer, 1993). The incidence of mental health problems, including depression, in the elderly is high. Left untreated, depression accounts for unnecessary suffering, reduced functioning and diminished quality of life for many older adults. Depression in older adults is of special concern since it is a major factor leading to inpatient care and elderly suicide (Thomas, Lelman, Kennedy, Ahn, & Yang, 1992). Although older Americans currently make up only about 13% of the population, they account for 28% of all suicides (National Center for Health Statistics, 1994).

Studies of depression in nursing homes (National Institutes of Health, 1991; Parmelee, Katz, & Lawton, 1992) have found rates of major depression as high as 25%, and 20% for minor depression. The exact incidence of depression in long term care settings is unknown. Practitioners are often unable to differentiate between depression and dementia, another form of mental illness common in the elderly. It is estimated that as many as 50% of individuals in dependent care settings have dementia (Hooyman & Kiyak, 1996). Cronkite (1994) points out that these two conditions often co-exist. An individual may have a long-standing depression with a beginning dementia or a progressive dementia with superimposed depression. Late onset depression, i.e., onset after age 65, may include psychotic thinking (either psychosis or paranoia) and thus present like dementia.

Clinical depression is not generally believed to be a normal feature of aging (Ahmed & Takeshita, 1996/1997). Newmann (1989) compared empirical studies that investigated the relation between aging and depression. Newmann found that some investigators contend that aging is associated with an increased risk of depression, while others view elderly persons as relatively immune from depression. Newmann's work failed to reconcile these disparate views because of the diverse measurement approaches used in the various studies as well as flaws in their design and analysis. U.S. Senator William S. Cohen ("Senator notes high risk," 1996), Chairman of the Senate Special Subcommittee on Aging, has voiced concern about the lack of acknowledgement that events that predispose individuals to develop depression are more likely to occur in old age. Cohen believes that many older adults themselves refuse to seek help because of a perceived stigma of mental illness, while others simply accept feelings of profound sadness without realizing they are clinically depressed. Blazer, Hughes, and George (1987) and

Ahmed and Takeshita (1997) agree that traditional criteria for major depression as defined in the *Diagnostic and Statistical Manual of Mental Disorders* may not be appropriate for older adults. However, there have been relatively few studies designed with an expressed interest in assessing depression among the elderly or in understanding the role that aging plays in the onset or course of depressive symptomology.

Older adults in long term care settings receive care from a multidisciplinary team of nurses, physicians, social workers, therapists and others. However, the availability of therapeutic interventions, especially in long term care settings, is limited (Fink, Siu, Brook, Park, & Solomon, 1987). Each discipline approaches the resident from a different conceptual framework. Evans et al. (1993) reported the lack of a comprehensive model for use by all disciplines to bridge and embody both the medical and psychosocial models within a life-span context. Reed (1991b) has suggested a theory of self-transcendence that may bridge this gap. Based on the life-span movement within developmental psychology and the rich heritage of knowledge in several nursing conceptual models, Reed's framework links mental health at the end of life with a developmental resource called self-transcendence. Self-transcendence refers broadly to a characteristic of developmental maturity whereby there is a healthy expansion of self-boundaries and an orientation toward broadened life perspectives and purposes. For instance, in self-transcendence, self-boundaries may become more introspective, turn outward through concerns about others' welfare, or may change in temporal perspectives by integrating perceptions of one's past and future to enhance the present. Reed's framework maintains that this little studied phenomenon is significant to mental health and well-being for those facing end of life issues, whether through aging, terminal illness or other experiences.

### Statement of the Problem

No studies have been reported to date that test the applicability of the theory of self-transcendence within the long term care population. This study proposes to do this by answering the following questions: Is self-transcendence a developmental resource in the oldest-old living in dependent care settings? Does the same inverse relationship between self-transcendence and depression found in oldest-old adults in the community (Reed, 1991a) exist in nursing home residents of the same age? Do even oldest-old nursing home residents with fewer experiences of self-transcendence still regard manifestations of self-transcendence as highly important and desirable in their lives?

### Statement of Purpose

The purpose of this study is to further knowledge of the potential significance of self-transcendence as a correlate of mental health among the oldest-old by partially replicating a study by Reed (1991a) among a sample of oldest-old nursing home residents. The results of this study will add to the growing body of nursing knowledge about developmental resources of late life, especially Reed's theory of self-transcendence. This growing body of knowledge may provide a basis for nursing and other disciplines to promote developmental progress in residents of long term care facilities by encouraging expansion of self-boundaries through spiritual and psychosocial expressions of self-transcendence. Although this study will not explore nursing interventions per se, support of the theory may provide a framework for future studies. Innovative therapies grounded in this theory such as group psychotherapy, meditation, visualization, religious expression, peer counseling, or journal keeping may someday enhance psychosocial well-being, foster choices, and offer increased meaning and improved quality of life to even the oldest-old.

## CHAPTER 2

### THEORETICAL FRAMEWORK AND LITERATURE REVIEW

#### Theoretical Framework

Reed (1991b) developed a theoretical framework of aging and mental health. This mid-range theory of self-transcendence combines knowledge derived from life span developmental psychology with Rogers' (Quillan & Runk, 1983; Rogers, 1970, 1990) conceptual nursing model. The evolution of the theory of self-transcendence is described first, with the concepts of the theory explained later in this chapter.

Until the late 1970s, most views of adult development were based on the reigning scientific worldview that pictured the entire universe as a machine. Aging, as a biological science, was depicted as a decremental process in which physical decline was assumed to cause concurrent decline in psychological competence (Lerner, 1983). Based on the second law of thermodynamics, which identified the tendency of matter to decay toward disorder and equilibrium, older adults were viewed as if they were closed systems, running out of energy and becoming increasingly disorganized to the point of debilitation and death.

Prigogine's (Brent, 1978; Prigogine & Stengers, 1984) theory of dissipative structures reconceptualized the physical sciences. Former mechanistic views were supplanted with a worldview in which living systems were seen as open, self-organizing, and thriving on disequilibrium creating "order out of chaos" (Prigogine & Stengers, p. xi). This change in paradigm within the physical sciences helped developmental theorists, including nurses, begin to view aging as a developmental rather than a decremental

process. Rogers' (1970, 1990) principles of homeodynamics describe human development as an open system process in which change does not obey the second law of thermodynamics.

The new "contextual-dialectic" paradigm of aging (Reed, 1983) addressed developmental progression in terms of the interaction between organismic, or individual, and environmental factors. Development, according to Reed (1983), is defined as a "pattern of changes that are regarded as positive and functional for a living system" (p. 19). Human beings are characterized as increasingly complex as they age, integral with their environment and capable of change throughout the life-span. The debates about human development at first centered around the degree to which dichotomizing factors, i.e., heredity and environment, influence development. More recently, these discussions are centered around how the interactions of heredity and environment effect change, particularly those interactions that create conflict. The current belief based on this line of reasoning is that conflicts resulting from person-environment interactions generate energy for development. The life-span developmental framework, therefore, implies that the multiple health care problems and losses that accompany the aging process may provide energy for the older adult to adapt to and overcome the challenges and hazards of daily life (Lemme, 1995). Coward and Reed (1996) go further in stating that a crisis or acute illness experience may actually provide the opportunity for a healing process to occur.

According to Reed (1991b), research from 1975 to 1990 expanded Piaget's developmental framework on reasoning to lend support to the theory of self-transcendence. Piaget's (1972) framework of "formal operations" explains development as movement from concrete thinking to abstract and symbolic thought. More recent studies have supported a level of reasoning called "postformal thought" that emerges in adulthood, especially later adulthood. Postformal thought is a relativistic, inter-dependent form of logic that applies to real life experiences of a social, personal and moral nature. It is viewed as the ability to confront existential concerns and metaphysical issues and



synthesize the paradoxical and conflicting elements. Postformal thought is described by Reed as the ability to step beyond the concrete aspects of an event to derive meaning from that event. According to Reed, it also reflects a broadened view of time in which past experience and anticipation of the future provide perspective (wisdom) on the present. Reed believes that perspectives achieved through postformal thought are pragmatic yet visionary. Erikson, Erikson, and Kivnick (1986) state, “Wisdom is detached concern with life itself, in the face of death itself. It maintains and learns to convey the integrity of experience, in spite of the decline of bodily and mental functions” (pp. 37-38).

The concept that conceptual boundaries of the self define the human field provides the cornerstone of Reed’s (1991b) mid-range theory. According to Reed (1991b), “human beings, as open systems, impose conceptual boundaries on their openness to define their reality and provide a sense of connectedness with themselves and their environment. These conceptual boundaries may or may not correspond with concrete experience” (p. 69). Conceptual boundaries of the self vary across human development. In infancy, self-boundaries are amorphous and the process of differentiating between the physical boundaries of oneself and others begins. Youth is characterized by a self-centeredness as the person strives toward identifying a conceptual boundary commonly referred to as self-identity. In maturity, the self has been well defined and its boundaries are expanded to include others (Erikson, 1964; Erikson et al., 1986; Peck, 1968; Piaget, 1972; Sullivan, 1953). If conceptual boundaries of a person are ill defined, too expansive, or too restricted for a given period of development, psychopathology can occur (Reed, 1991b).

Reed (1991b) states that in clinical settings, the terminology that is used to describe psychopathology that results from ill-defined conceptual boundaries includes: autism, concrete thinking, egocentricity, enmeshment, self-absorption and alienation. Major depression, as a diagnostic category, is caused by a complex interaction of many factors. Although depression may not always represent developmental psychopathology,

when this terminology is used in the context of life-span developmental theory, depression is defined as a failure to trade away old behaviors and perceptions in the context of changes that occur with aging. From this perspective, depression occurs at or around the time of developmental events, e.g. loss of spouse or close friends, change of residence, or declining physical abilities. If there are problems trading away the less useful behaviors and perceptions and acquiring new resources, depression occurs. Mental health, on the other hand, is a state of expanding consciousness within the context of illness (Newman, 1994). In a study of persons who had a terminal illness, Fryback (1993) described the wholeness observed in some of these people in terms of a balance or integration of body, mind and spirit.

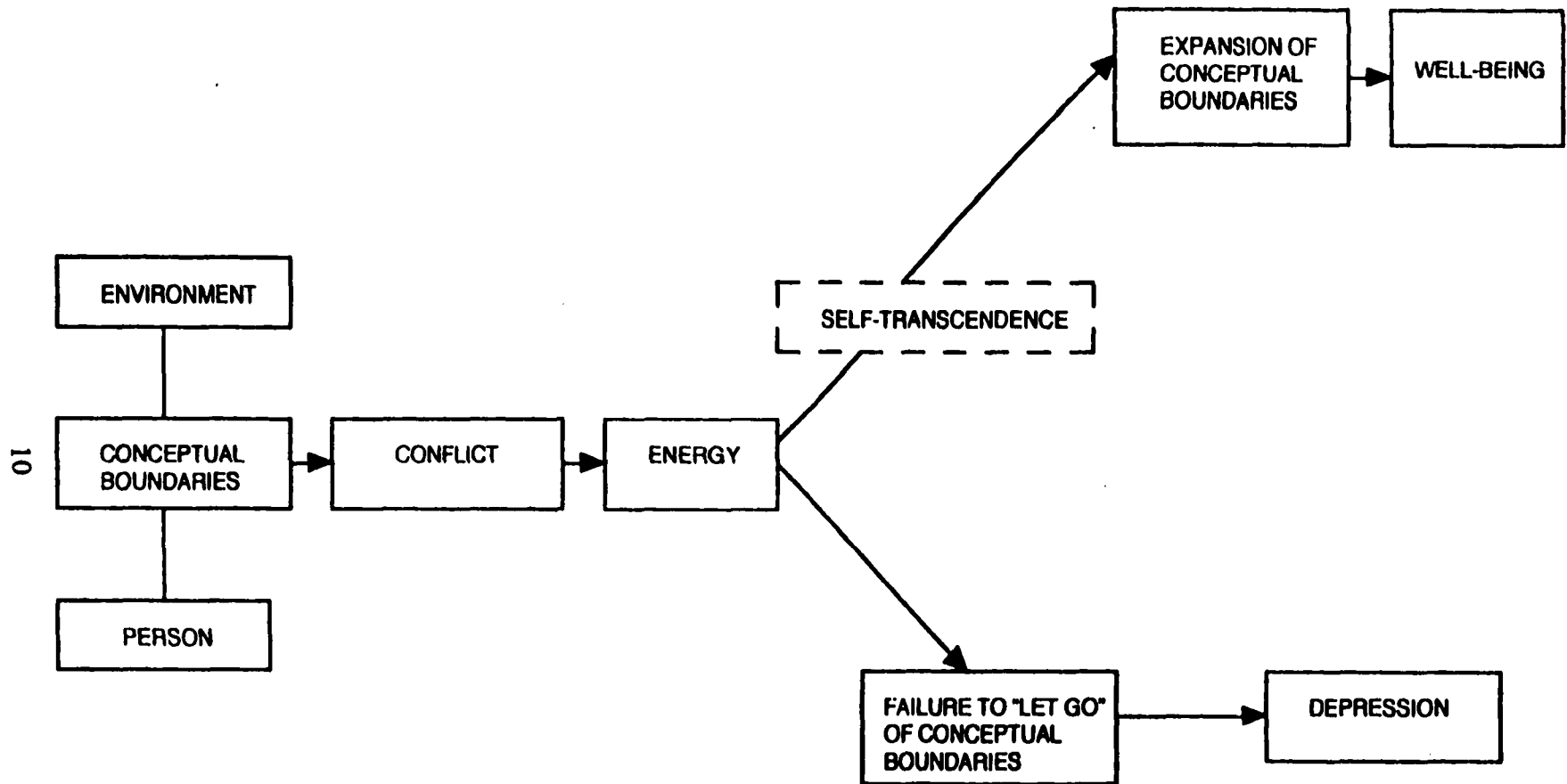
Unique resources help facilitate changes that occur in later adulthood just as they do with changes in childhood and adolescence. Self-transcendence, according to Reed (1991a; 1991b) is a developmental resource that enables the healthy expansion of personal conceptual boundaries and an orientation toward perspectives, activities and purposes beyond the self without negating the value of self. Self-boundaries may be expanded in multi-dimensional ways: (a) inwardly in introspective activities, (b) outwardly through concerns about others' welfares, and (c) temporally whereby the perceptions of one's past and future enhance the present. It is a "process of trade-offs in which old behaviors and perceptions are traded away for those more useful as contexts change during aging" (Reed, 1986, p. 368). As a developmental resource, self-transcendence can promote or restore mental health and productive person-environment interactions during a given life phase (Reed, 1989).

Frankl (1984) suggests that self-transcendence is a state in which some individuals are able to overcome grief, integrate loss and find meaning through loss. In particular, self-transcendence has been found among persons in end of life phases when their physical health status or condition is typically not curable or reversible (Coward, 1995; Coward & Lewis, 1993; Reed, 1991a).

Life-span developmental theory and Rogers's nursing theory provide conceptual support for Reed's mid-range theory (See Figure 1). Reed's (1991b) key assumptions are:

1. Human beings have a sense of connectedness between the self and one's environment.
2. Human beings, as open systems, impose perceived or conceptual boundaries on their own openness to define their sense of reality or connectedness within themselves and their environment (p. 69).
3. Conceptual boundaries may or may not correspond with concrete experience. For example, through one's perspectives about death, reaching out to others, actualizing one's potential, or learning to live with a debilitating illness, a person can step beyond and redefine traditional spatial-temporal boundaries of the "physical body."
4. Conceptual boundaries of the self are relevant to human health and development.
5. Conceptual boundaries are impacted by developmental phenomena (i.e., normative or non-normative events) that occur across the life span.
6. The conflict that occurs within a person experiencing a developmental phenomenon, e.g. illness, disability, or increased awareness of personal mortality, including advanced age, produces energy.
7. Energy produced as a result of conflict may activate self-transcendence.
8. Self-transcendence, as an innate characteristic of developmental maturity, may enable a person to expand self-boundaries and achieve a sense of well-being.
9. If conceptual boundaries are not expanded but immobilized in these times of conflict, powerlessness, low self-esteem and depression will occur.

The concept of development has been re-formulated in Reed's theory. In psychology, development is typically regarded as change occurring longitudinally over a period of years (i.e., ontogenesis). Reed (1991b) accepts the more traditional definition



**Figure 1: A conceptual diagram of Reed's mid-range theory of self-transcendence as it applies to depression in the elderly.**

and adds developmental changes that occur within a time period of months, days, weeks, or even hours, minutes, or seconds (i.e., microgenesis). According to Reed's theory, not only is self-transcendence a characteristic associated with advanced age, but it can also occur in the context of a significant life event, particularly one that increases awareness of personal mortality. Therefore, Reed's theory includes persons currently dealing with end-of-own-life events. "Experiences of terminal illness, life-threatening events, chronic illness, suicidal ideation, and the aging process represent potential domains within that boundary" (Reed, 1991b, pp. 71-72).

In summary, the theory of self-transcendence, then, is that persons experiencing end of life issues, irrespective of chronological age, have the capacity to reach out inwardly, outwardly, and temporally beyond self-concerns. In so doing, these persons are able to broaden life perspectives, expand self-boundaries, and attain a sense of emotional well-being. The major proposition of Reed's theory is that self-transcendence is positively related to mental health as an indicator of overall well-being in persons of any age confronted with end-of-own-life issues (Reed, 1991b).

### Review of the Literature

The literature review for this study is based on studies of mental health in older adults. Since the 1970s, studies of mental health, specifically studies of depression and well-being in older adults, increasingly have reflected a life span developmental perspective. Studies of the concept of self-transcendence as operationalized in adults of any age are the initial focus of this literature review.

Self-transcendence. Peck (1968) first described ego transcendence as the ability to accept one's own mortality, and body transcendence as the ability to transcend pain, discomfort and other physical signs of aging in order to maintain satisfying human relationships and creative activities. Walton, Shultz, Beck and Walls (1991) describe self-transcendence as "the culmination of psychological development in the second half of life that includes the acquisition of both ego and body transcendence" (p. 166). Smith (1995)

presented a “transegoic” model of transpersonal development with related dimensions of spiritual awareness and personal death perspective (p. 403). Coward (1996) documented the presence of self-transcendence in a healthy population whose average age was 46 years (SD = 16), with an age range of 19 to 85 years. However, there are relatively few empirical studies of the construct of self-transcendence. Many of the studies that have been done are small phenomenological studies. Taken together, since each sample represents very different types of people, a body of knowledge is beginning to form. This research will contribute to that body of knowledge.

Reed (1989) first conducted a descriptive, correlational study as a preliminary step toward identifying the significance of developmental factors to mental health in older adults. The study looked at the relationship between developmental resource level and depressive symptomology in a convenience sample of 30 adults over age 60 who were hospitalized with a primary diagnosis of major depression. In order to measure the relationship between the reasons identified by the older adults for their hospitalization and developmental factors, a new instrument, the Developmental Resources of Later Adulthood Scale (DRLA) was developed. The DRLA operationalized developmental resources characteristic of older adults. Pilot testing of the instrument with 130 middle class, Caucasian older adults was conducted. Seventy-two of the 130 were mentally healthy, 14 were clinically depressed and 44 were nursing home residents. Cronbach’s alpha for reliability was .90 or above for all three groups. Inter-item and item-scale correlations demonstrated little redundancy. Content validity of the DRLA was supported by a panel of experts in adult development in aging and the sample of older adults themselves who rated the DRLA items as highly important in their lives. Criterion-related validity of the DRLA was indicated by significant inverse correlations between the DRLA and the Center for Epidemiological Studies-Depression Scale (CES-D) in the mentally healthy group ( $r = -.61, p < .001$ ). Reed also cited a Gallup study that supported criterion-related validity by comparing DRLA scores and death anxiety ( $r = -.44, p < .05$ ).

Construct validity was tested using a Mann-Whitney U test comparing the 14 clinically depressed ( $M = 4.54$ ,  $SD = 1.80$ ) and a sub-group of 14 who were randomly selected from the 72 mentally healthy adults ( $M = 6.34$ ,  $SD = 1.1$ ), with a  $U(14,14)$  of 45 ( $p < .01$ ). A significant difference was also found in DRLA scores between the nursing home group ( $M = 5.25$ ,  $SD = 1.2$ ) and the mentally healthy group ( $M = 6.56$ ,  $SD = .98$ ) with a  $t$  value of 6.24 ( $d.f. = 42$ ,  $p < .001$ ).

Finally, although the intercorrelations were regarded as unstable in view of the small sample size, exploratory factor analysis yielded preliminary results that eventually led to the development of the Self-Transcendence Scale (STS) used in the current study. In a factor analysis, Reed (1989) found that transcendence accounted for 45.2% of the variance. Transcendence represented “activities and perspectives older adults characteristically engage in to expand their personal boundaries and orient themselves toward purposes greater than the self” (Reed, 1989, p. 149). These activities included involvement in community, exploring new outlooks on life, sharing experiences with others and finding spiritual meaning.

Self-transcendence along with spiritual perspective, hope and acceptance are complex, multi-dimensional concepts that are important to nursing, but difficult to define, distinguish and operationalize (Haase, Britt, Coward, Leidy, & Penn, 1992). Using a process of simultaneous concept analysis developed by the authors, Haase et al. (1992) examined the antecedents, critical attributes and outcomes of each concept. A clarification process was initially applied to each concept by the author with expertise in the area. Then, as a consensus group, they used an interactive process of comparison and reconciliation to identify and display commonalities across the concepts. Common elements of the antecedents, critical attributes and outcomes were found in all four concepts. For instance, self-transcendence was found to be an outcome of spiritual perspective, hope and acceptance; and major or stressful life events were found to be potential antecedents of all four concepts.

In addition to a stressful life event, such as chronic or terminal illness or aging per se, there are several other specific antecedents of a self-transcendental state. First is a person's innate tendency to move beyond self-interest. Other potential antecedents include spiritual perspective, acceptance of an inescapable situation and involvement in human work, or activity that "enlarges the visions and goals of a person" (Haase et al., 1992, p. 144).

Haase et al. adopted Reed's (1991b) definition of self-transcendence, i.e. "the experience of extending one's self inwardly in introspective activities, outwardly through concerns about the welfare of others, and temporally such that the perceptions of one's past and anticipated future enhance the present" (Haase et al., 1992, p. 144). The outcomes of self-transcendence from this study support others' findings. Outcomes included a sense of well-being; enhanced feelings of self-worth; a greater sense of connectedness with others, nature and God; personal growth; finding purpose and meaning in life; and a sense of being healed.

Several studies have described the lived experience of self-transcendence in people with acquired immune deficiency syndrome (AIDS) (Coward & Lewis, 1993; Coward, 1994; Coward, 1995), and in women with advanced breast cancer (Coward, 1991). The purpose of each of these studies was to explore the concept of self-transcendence and its effect on emotional well-being in the context of life-threatening illness. Coward and Lewis's (1993) phenomenologic study described the structure of self-transcendence in eight gay men with AIDS. Analysis of their oral and written interviews using Colaizzi's phenomenologic technique demonstrated that these men experienced self-transcendence in the three ways described by Frankl (1969). These three ways included reaching out for help, helping others, and adopting an attitude of acceptance. These experiences of self-transcendence contributed to feelings of interconnectedness to others, increased self-esteem and well-being, or increased meaning and purpose in life.



A study using similar procedures (Coward, 1994) of 10 men and 10 women with AIDS also supported Frankl's definition and Reed's theory of the association of self-transcendence with mental health. The fundamental structure of self-transcendence for both men and women in Coward's (1994) study was a dialectic with two sources of tension. The first source of tension existed between isolation (fear and aloneness) and connectedness. The second existed between accepting AIDS as terminal illness and maintaining hope for a cure.

High levels of self-transcendence in older adults have been linked to high levels of well-being (Walton et al., 1991), to low levels of loneliness (Walton et al., 1991), to low levels of depression (Reed, 1989; 1991a) and to low levels of suicidal thoughts (Buchanan, Farran, & Clark, 1995). The studies by Reed and Buchanan et al. are examined in a later section. Self-transcendence has also been shown to be positively correlated with core spiritual experience and spiritual perspective (Bauer & Barron, 1995). Joffrion and Douglas (1994) propose that self-transcendence can even be a sixth state of successful grief resolution.

Coward and Reed (1996) cite several of the studies in this literature review along with other research as evidence that the concepts of self-transcendence and healing are linked. Although most of these studies were conducted using a small sample size and phenomenological technique, support for the concept of self-transcendence in the healing sciences is mounting. As Coward and Reed (1996) conclude, "The process of self-transcendence may lead to healing within the contexts of serious illness, disability or aging" (p. 276). Healing, as differentiated from curing, is a person's own overcoming of an undesirable condition to restore integrity or wholeness to self. "Self-transcendence is a mechanism by which end-of-life experiences are transformed into healing" (p. 281).

Well-being. Mental well-being is often described from the viewpoint of developmental change, growth and attainment of new ways of experiencing and relating to one's world. Manheimer (1994) described psychological wellness not as happiness,

normalcy, or freedom from worries, but as a process in which the person gains insights and expands the capability for relationships. Well-being, according to Manheimer, includes ideals of growth, realization of personal potential and integration of personality, even though complete attainment of the ideal may be statistically rare.

Reed (1986) conducted a literature review of well-being in a study of relationships between developmental resources and depression. This review identified some developmental correlates and predictors of emotional well-being in older adults. These correlates included viewing life as worthwhile, expanding one's life space, having a sense of financial security, satisfaction with one's lifestyle and use of time, acquiring a positive perception about one's body, and engaging in self-expression. Other activities found to be significant to emotional well-being in Reed's (1991a) literature review included reciprocating social support (to help as well as be helped), keeping busy (alone or with others), making one's own decisions, having faith, taking one day at a time, taking stress management courses and thinking positively. Both of Reed's research studies are examined in further detail in a later section.

One particularly relevant study by Reker, Peacock, and Wong (1987) looked at the relationship between meaning and purpose in life and well-being across the life span. Five groups of 30 men and 30 women living in the community, each group at one of five developmental stages from young adult (16 – 29 years) to old-old (75 years or more), participated. The multidimensional 46 item Life Attitude Profile (Reker & Peacock, 1981) was used to quantify the amount of meaning and purpose that individuals in the sample felt at that point in their lives. Using a 7-point scale to rate each item, the Life Attitude Profile was designed to measure seven dimensions: Life Purpose (zest for life, fulfillment, contentment, satisfaction); Existential Vacuum (lack of purpose, lack of goals, free-floating anxiety); Life Control (freedom to make life choices and exercise responsibility); Death Acceptance (lack of fear or anxiety about death); Will to Meaning (striving to find meaning in personal existence); Goal Seeking (desire to achieve new goals and be on the

move); and Future Meaning (determination to make the future meaningful, acceptance of future potentialities). Internal consistency ranged from .66 to .83 for each scale; stability coefficients ranged from .56 to .83.

The other instrument used in this study was the Perceived Well-Being Scale (Reker & Wong, 1984). This 14 item 7-point scale measures psychological and physical well-being. The alpha coefficient was found to be .82 in a sample of 238 elderly adults. Test-retest correlation was .79 over a two year period. Both psychological and physical well-being were found to be positively correlated with happiness and negatively correlated with depression in studies using this instrument.

Results of the study demonstrate that several dimensions of life attitudes change over the life course in predictable ways. Life Purpose and Death Acceptance both increased with age. Goal Setting and Future Meaning both decreased. Higher levels of Existential Vacuum were found in the young and elderly groups relative to the middle age group. This pattern is very similar to the pattern of suicide rates in the United States.

Six of the seven dimensions of the Life Attitude Profile were significantly related to well-being. Will to Meaning was not significantly related. Goal Setting and Existential Vacuum were negatively correlated, and the others were positively correlated with well-being, when looking at all age groups combined.

Since the proposed study will focus on oldest-old adults, the results of the Reker et al. (1987) study will be reviewed more in depth for this age group. Reker et al. (1987) found that in the old-old adults, psychological well-being was associated with Future Meaning ( $r = 0.47, p < .001$ ) and Life Purpose ( $r = 0.52, p < .001$ ). Future Meaning was also associated with positive physical well-being ( $r = 0.23, p > .05$ ) in this age group as was Life Purpose ( $r = 0.33, p < .01$ ). Having a sense of control of one's life was also a moderate predictor of psychological and physical well-being ( $r = 0.31, p < .05$  for both) in the old-old group. However, a significant negative correlation of Death Acceptance with both psychological ( $r = -0.27, p < .05$ ) and physical well-being ( $r = -0.23, p < .05$ ) was

found. Therefore, this study did not support the hypothesis that death acceptance is a part of well-being in old-old individuals.

The cross-sectional data in this study provide information on attitudes toward life meaning and purpose at different ages. However, it is not a longitudinal study and therefore does not provide any insights about changes over time nor does it represent the aging process per se. There are other limitations of this study that limit generalizability. The measures of well-being were subjective, all participants were living independently in the community and most participants perceived themselves as physically healthy (score ranges 37-43 out of a possible 56). The relatively small sample size, together with the convenience sampling technique used in this study, also limits its generalizability.

The relationship between psychological well-being and physical health was further explored by Heidrich (1993). In this study, 240 community dwelling women aged 65 and over completed self-report measures of psychological well-being and physical health. The average age of participants was 73.3 years. Well-being was measured using four scales developed to capture developmental aspects of the concept (purpose in life, personal growth, positive relations with others and autonomy). Each of the four scales contained 20 items randomly mixed into an 80 item instrument with a six point scale for rating each item. Validity was established by comparing the four scales to other common measures of well-being such as affect balance, life satisfaction, self-esteem, depression, morale and locus of control. Correlations ranged from .29 to .49. Reliability (alpha coefficients) ranged from .91 to .86 and test-retest reliability ranged from .88 to .81. Well-being was also measured in its absence, using the CES-D for depression and the 20 item sub-scale of the Jackson Personality Research Inventory for anxiety. Measures of physical health included (a) the number of health problems from the Older Americans Resources Services (OARS) schedule, (b) difficulty with activities of daily living as measured by the OARS ADL, and (c) symptom-bother from a 13 item symptom-bother tool.

The number ( $M = 3.3$ ) and types of physical health problems were similar to the

general population of older women. Symptom bother was low ( $M = 13.1$ , with a range of 0-50) as was difficulty with ADLs (15.7 with a range of 12-41). Twenty-one percent of the sample scored above 15 on the CES-D, the criterion established to indicate clinical depression. The results of hierarchical multiple regression analysis indicated that age was negatively related to three of the four dimensions of well-being, i.e., purpose in life ( $\beta = -.28, p < .001$ ), personal growth ( $\beta = -.25, p < .001$ ) and positive relations ( $\beta = -.14, p < .05$ ). Age was not related to autonomy, depression, or anxiety. After age was taken into account, the overall pattern did correlate lower levels of well-being, including depression and anxiety, with poor physical health. However, it was not the number of health problems per se but symptomatology and functionality that affected both depression and anxiety.

The correlations in this study do support an inverse relationship between depression and well-being. The high incidence of clinical depression is consistent with other data concerning the prevalence of depressive symptoms in elderly women (Blazer et al., 1987). Heidrich (1993) concludes from these findings that treating physical symptoms in elderly women may help alleviate depression and that low levels of depression may not necessarily indicate mental health, but rather lack of developmental growth toward increased well-being. There are two main factors that limit this study. The selectivity of the sample (all were community volunteers) may provide an explanation for some of the weak effects of age and physical health in this study. Also, the cross-sectional and correlational nature of the data limits the cause and effect relationships that can be drawn between poor health, increased age and optimal psychological development.

Depression. Failure to successfully respond to age related stressors and life circumstances is often used to explain the high rates of depressive symptomatology among older adults. Erikson, Erikson and Kivnick (1987) report a tension between depression and well-being that most of the elders in their study experienced. The 29 octogenarians who participated were parents of children born in 1928 and 1929 in Berkeley, California.

The children had all participated in a longitudinal study known as the Guidance Study. Now interviewed for the first time themselves, many of the elders described a philosophy of aging that expressed a determination to “keep old age licked” (p. 62). Most of those interviewed seemed to struggle with almost involuntary thoughts about dying, feeling ill, depressed, and somehow let down with a determination to balance these negative associations with more optimistic life affirming involvement in life. The authors noted that many of those interviewed seemed to purposefully exclude feelings of pessimism or discouragement from their conversations, “lest they jeopardize fragile tendencies toward energetic optimism” (p. 63).

According to Ensel (1991), researchers have been interested in the role of social and psychological resources in the stressor-illness relationship since the mid 1970s. The results of many of these studies were inconsistent, perhaps due to operational confounding (a result which occurs when indicators of one concept are similar to indicators of another concept) or aggregation of life concepts. Ensel’s (1991) study examined the effects of two specific types of major life stressors (health and non-health related) on subsequent levels of depressive symptomology. It also examined the role of psychosocial resources on alleviating such symptoms. In-depth personal interviews were conducted using 1,199 randomly selected respondents from a five county standard metropolitan statistical area in upstate New York. Multistage random sampling used sex and age quotas to assure adequate representation in each of the four age groups (50 to 64, 65 to 74, 75 to 84 and 85 and over). A 140 item life event inventory was used to measure variables which occurred over a six month period. Responses were categorized as (a) total life events, (b) total undesirable life events and (c) total desirable events. The first two categories were further broken down into health-related versus non-health-related events or stressors. Since virtually all health-related events were considered undesirable, no division of total desirable events was made.

Respondents were also asked questions such as which of the events was the most

important to them; whether they felt that they had control (an indicator of a psychological resource) over that event; whether they felt that they needed someone to talk or listen to, to do things for them, or both when the event occurred; and about whether they got help from anyone. These later two questions were considered indicators of social resources. Depression, the dependent variable, was measured using the CES-D. The CES-D is a 20 item scale with reliability coefficient above .90 in clinical groups and above .85 in general populations. Those experiencing either undesirable health-related or undesirable non-health-related life events were more depressed than those experiencing only desirable life events. Those who experienced a major life event had a higher mean level of depression than those not experiencing a major life event or not considering any of their life events to be major. Health-related events seemed to exacerbate levels of depression, although older respondents and those feeling some control over the event were less depressed than those not feeling control. Those who reported that they needed social support with a non-health related event and did not get it were twice as depressed as those who needed support and received it. Health-related events seemed to require more instrumental support than expressive or companionship-related support. The study did not measure the effects of chronic or recurring illness on depression, and because of the small number in some cells, the results may not be generalizable.

Roberts, Dunkle and Haug (1994) conducted another preliminary study in the relationship of stress and mental health in persons 85 and older living in the community (n = 153). The research looked at the attenuating effects of physical, psychological and social resources on that relationship. Physical resources were defined as perceived health and independence in activities of daily living (ADL) and in instrumental activities of daily living (IADL). Psychological resources included measures of mastery, self-esteem and coping. Social resources included frequency of social interaction and size of social network. Adverse effects of strain on psychological well-being were less in those with greater independence in IADLs and greater perceived control of events.

Some of the instruments used in this study showed moderate to low reliability. Cronbach's alpha for the Katz Activities of Daily Living Index was .67; it was .54 for the Older American Resources and Services (OARS), and .35 for the Perlin Mastery Scale. The authors state that these instruments may not be applicable among the very old. Aggregation of measures of life events, strains, coping and social support did not provide information about personal resources that may have buffered adverse effects of some stressors. Roberts et al. recommend further research using a more heterogeneous sample to determine whether the very old experience different life events and strains and whether they have fewer personal resources than younger adults.

In another study, Reed (1986) examined depression and patterns of developmental resources among mentally healthy and clinically depressed older adults over three time periods. Developmental resources were defined as assets that emerge characteristically during a certain phase of the life span out of person-environment interactions (p. 368). Twenty-eight adults, mean age 66, hospitalized with depression were compared to a second group of 28 mentally healthy older adults, mean age 69, acquired through local church groups and a community center. There were 19 women and 9 men in each group. Fifteen in the depressed group were married, and 18 in the mentally healthy group were married. The Developmental Resources of Later Adulthood scale (DRLA), a 36 item scale with good reliability (Cronbach's alpha over .90 in three groups), was used to measure the level of developmental resources present in the lives of the study sample. The CES-D was used to identify emotional symptoms of depression. A cross-lagged panel correlation method was used to identify causal tendencies between developmental resources and depression over three time periods. This technique assumes that when an event precedes the occurrence of another event and the reverse does not occur, the influence of one variable on another variable may be implied. Analysis of the cross-lagged panel correlations identified two patterns of relationships between the two groups. There was a significant causal tendency for developmental resources to affect depressive



symptoms in the mentally healthy group. These developmental resources included such items as the ability to find meaning in life's misfortunes, share one's wisdom, accept one's past-present-future and adjust to changes in physical abilities. However, in the depressed group, there was a trend for the reverse, i.e., depression tended to influence developmental resources. Reed's only stated explanation for these conflicting results was that clinical depression along with other emotional crises may represent a unique developmental patterning different than that found in non-psychiatric groups. According to Reed, other factors may contribute more to subsequent depression levels once the individual becomes depressed than do developmental resources.

Other studies by Reed (1989; 1991a) demonstrated a significant inverse relationship between developmental resources and the level of depression. In Reed's 1989 study, 30 older adults aged 60 to 81 years (mean age 67 years) hospitalized with major depression were asked to give their view on the main reason for psychiatric hospitalization. They were then interviewed using the DRLA and CES-D instruments, as well as a third tool, the DRLA-Importance scale, which is a modified version of DRLA using the same measures but asking importance to rather than presence of certain factors in one's life. Content analysis of the qualitative data showed that 60% of the reasons given for hospital admission were related to events occurring in later adulthood, i.e., developmental tasks. These included parent-adult child relationships, other non-kin relationships, physical concerns, death of a close family member, and the need for answers to questions about life. Pearson's correlation analysis revealed a significant, inverse relationship between level of developmental resources as measured by the DRLA and level of depression as measured by the CES-D ( $r = -.47, p < .01$ ). As might be expected, these participants were generally lacking in developmental resources as evidenced by the fact that the average score on the DRLA was 4.5 (S.D. = .69) out of a possible 8. However the average score on the DRLA-Importance scale was 6.7 (S.D. = .67), indicating that participants regarded developmental resources as highly important, even though these

resources were not being utilized at that time in their lives.

The second example of an inverse relationship between developmental resources and depression is Reed's (1991a) study of 55 oldest-old adults living in the community. They ranged in age from 80 to 97 years, with a mean age of 88 years. This study measured a single developmental resource, namely self-transcendence, using the 15 item Self-Transcendence Scale (STS) developed from the longer DRLA scale (Reed, 1986). Reliability of the STS as estimated by Cronbach's alpha ranged from .80 in this study to .93 in an earlier study (Reed, 1989). The purpose of this study was to examine the relationship between self-transcendence and depressive symptomology in oldest-old adults and to identify patterns of self-transcendence that are important to emotional well-being. Using a Pearson's correlation analysis, the STS was compared to the CES-D scores ( $r = -.33, p < .01$ ). The STS was also compared with the 22 item Langer scale of Mental Health Symptomology (MHS), another general measure of poor mental health with reported reliability coefficients ranging from .72 in this study to over .80 in other studies. Results indicated a similar correlation ( $r = -.32, p < .01$ ). Analysis of the qualitative data identified four conceptual clusters: (a) generativity, defined as altruistic involvement; (b) introjectivity, or the use of available resources in the environment to focus on inner-directed activities and lifelong learning; (c) temporal integration, defined as the participants' views about their past, present and anticipated future; and (d) body-transcendence, the ability to integrate physical changes due to aging or illness into one's current life. The findings in this study of oldest-old adults support other research. Developmental resources may be important to mental health at all stages of the aging process. That body-transcendence emerged as a dominant pattern which differentiated those less depressed from those with more depressive symptoms is of particular interest in this age group. This study, however, was limited to a relatively physically well group of oldest-old adults.

Buchanan, Farran and Clark (1995) pretested the use of the STS with suicide

behaviors. A convenience sample of 35 adults between 65 and 90+ years of age (median age 73 years) from three inpatient adult or geriatric psychiatric units participated. The three groups appeared to be comparable in demographic variables and STS scores. However, respondents in one unit had fewer affective disorders of depression or bipolar disorder and more anxiety, schizophrenia and substance abuse disorders than did respondents in the other two units.

Subjects were compared based on information from their charts, primary nurses and the clients themselves. The clients elaborated on the STS survey item statement, "At this time of my life, I see myself as accepting death as a part of life" (Buchanan et al., p. 32). Correlation coefficients between the STS and the clients' ideas related to wish for death, suicide ideation, suicide attempts and self-destruction behavior were determined. Scores on the STS and the ideas related to a wish for death showed a significant inverse relationship ( $r = -.55$ ,  $p < .001$ ). Other relationships were in the expected inverse direction, but were not significant. Using one-way analysis of variance, there was also a significant difference in STS scores between those individuals who do not yet wish to die and those who wished to die and were not suicidal ( $F = 8.17$ ,  $p = .0014$ ). Respondents who did not wish to die had higher STS scores. However, this study had limitations of sample size, a nonrandom selection process, inter-group variations in diagnostic categories and a population limited to hospitalized respondents.

Scant research is available to support the common clinical and lay notion that individuals who are medically ill become depressed as a psychological reaction to physical disability. Lyness, Caine, Conwell, King and Cox (1993) point out that medical disability is difficult to measure. A valid and reliable assessment of overall medical burden based on evidence of pathology in each organ system can be accomplished using the Cumulative Illness Rating Scale. However, it is now widely accepted (as cited in Rossen & Buschmann, 1995) that cognitive processes mediate individual reactions to the

environment, including reactions to medical conditions. No studies could be found to explain differences in psychological responses of people to similar health situations.

Much more research is needed on how a developmental resource like self-transcendence interacts with physical disability and mental health in the oldest-old who are no longer able to live independently. This study will add to this body of knowledge.

### Hypotheses

1. Oldest-old individuals living in a dependent care setting will identify some experiences of self-transcendence in their current lives.
2. There will be a significant inverse relationship between self-transcendence and depression among this population of oldest-old adults in dependent care.
3. Oldest-old residents in dependent care settings with fewer experiences of self-transcendence will regard manifestations of self-transcendence as highly important in their lives.

### Definition of Terms

*Oldest-old individuals* are those individuals 80 years of age or older.

*Dependent care setting* is a nursing home where older adults live in order to have continuous assistance with their physical care needs.

*Self-transcendence* is a process of integrating manifestations of developmental maturity into one's life at a point toward the end of one's life. According to Reed's (1991a) definition, the integration of such manifestations expands one's personal conceptual boundaries multi-dimensionally. Conceptual boundaries may be expanded inwardly through increased self-understanding and introspection; outwardly through investing oneself in relationships with others and the environment; and/or temporally by integrating perceptions of one's past experiences and future expectations in a way that enhances one's view of the present. This process of self-transcendence, or developmental maturation, if it occurs, results in a personal sense of well-being. Manifestations of self-transcendence are those interpersonal, intrapersonal and temporal experiences listed in the

Self-Transcendence Scale that promote the expansion of self-boundaries. Examples of these experiences include having an interest in continuing to learn, sharing one's wisdom, adjusting to changes in physical abilities, and finding meaning in one's past experiences.

*Well-being* is a sense derived from one's intensified awareness of wholeness and integration among all dimensions of his/her being. For this study, well-being is measured in its absence by measuring its opposite affective state, depression.

*Depression* is an affective state of being which impairs physical and social functioning to some degree (Rossen & Buschmann, 1995). It is the result of a person/environment developmental conflict and occurs if conceptual boundaries remain unchanged and old behaviors and perceptions fail to be traded away (Reed, 1989). Of the two distinct measurement approaches used to define depression in research (Rossen & Buschmann, 1995), this study will use a depression screening tool approach instead of using criteria from the American Psychiatric Association as outlined in the *Diagnostic and Statistical Manual of Mental Disorders* (1994) fourth edition.

## CHAPTER 3

### METHODOLOGY

#### Research Design

A descriptive correlational research design was used for this study to examine the relationship between self-transcendence and depression in oldest-old adults. This researcher surveyed a convenience sample of residents from one nursing home using face-to-face interviews.

#### Population and Sample

Population. The research setting was a 338 bed county operated licensed nursing home in a large mid-western city. The average daily census in the facility during the data collection period was 260 patients. Sixty-six percent (n = 114) of these patients lived on one of the long term care units. The remainder of the patients were cared for on a short term basis on one of the post hospital sub-acute units. One hundred seventy-two, or approximately 66% of the nursing home population at the time of this study were 80 years old or older. These 172 oldest-old patients were the target population for this study. The characteristics of the target population are described in further detail in Chapter 4.

Sample. The 172 patient names in the target population were ordered using a table of random numbers. Patients with legal guardians noted in their charts were automatically excluded from being part of the sample. The first remaining one hundred twenty-two individuals from the target population were approached in order over a 10 week period

until a final sample of approximately 50 patients could be selected. Six percent (n = 7) of those contacted refused to participate. Forty-one percent (n = 50) were unable to communicate with the researcher due to having a severe hearing loss or advanced dementia. The remaining 53% (n = 65) were willing and able to begin the interview process.

Fourteen of this remaining group (11%) demonstrated only limited participation. These 14 residents scored 19 or less on the Mini-Mental Status Exam (MMSE) and thus were excluded from participating in the remainder of the study. Only 42% (n = 51) of those randomly selected met all the criteria for inclusion in the study and participated fully. See Table 1 for participation level of residents by type of unit.

Table 1

Participation Level of Residents by Type of Unit

Participation Level	Long Term Care Unit		Sub-acute Unit		Total	
	Frequency <u>n</u>	Percent %	Frequency <u>n</u>	Percent %	Frequency <u>n</u>	Percent %
Refused	6	6	1	5	7	6
Unable	49	48	1	5	50	41
Limited participation	14	14	0	0	14	11
Full participation	33	32	18	90	51	42
Total	102	100	20	100	122	100

The characteristics of the 14 respondents with limited participation were compared to the characteristics of the 51 respondents with higher MMSE scores who participated fully in this study. Note that the sample size of those with low MMSE scores is relatively small (n = 14). Therefore comparisons between the two groups are limited. However, there were no statistically significant differences found with regard to age, sex,

marital status, religious preference, financial status, or health indicators between the two groups.

Two significant differences between the two groups were found. These were years of education and type of unit in which subjects lived. The group with low MMSE scores had from 0-14 years of schooling ( $M = 8.4$ ,  $SD = 3.7$ ). The number of years of schooling in the other group ranged from 0-18 years ( $M = 10.8$ ,  $SD = 3.0$ ). The difference in mean years of education between the two groups was significant using a pooled t-test ( $t = -2.52$ ;  $df = 63$ ;  $p = .01$ ). Chi square was used to test for significant differences between the type of units on which the two groups with higher and lower MMSE scores lived. All of the 18 respondents from sub-acute units had MMSE scores of 20 or more. Of the 47 respondents from long term care units, however, only 70.2% ( $n = 33$ ) had MMSE scores of 20 or more. One hundred percent ( $n = 14$ ) of the respondents with lower MMSE scores lived on long term care units. Testing yielded a chi square of 6.83 ( $df = 1$ ;  $p = .01$ ).

### Instruments

Five instruments were used for data collection: a personal data survey (Appendix A); the Mini Mental State Exam (Appendix B); the Boston 10 x 2 (Depression) Scale (Appendix C); the Self-Transcendence Scale; and the Self-Transcendence Importance Scale.

Personal data survey. The personal data survey is a self-report tool describing specific characteristics of oldest-old adults in the sample (See Appendix A). As in Reed's (1991a) study, the characteristics that were measured included: age, sex, marital status, years of education, religious group most strongly identified with, financial status, general



health status, identification of types and number of major health problems, number of medications taken, and whether or not this resident had been bedridden or hospitalized in the past six months. Length of stay data and type of unit, i.e., long term care or sub-acute, were added to the demographic data in this study to describe more accurately the nursing home population.

Mini-mental state exam (MMSE). The MMSE (Folstein, Folstein & McHugh, 1975) (Appendix B) is a simple but thorough quantitative screening instrument which includes 11 questions, takes only 5-10 minutes to administer, and is widely used to assess cognitive performance in adults of all ages. The MMSE is called “mini” since it “concentrates only on the cognitive aspects of mental functions, and excludes questions concerning mood, abnormal mental experiences and the form of thinking” (Folstein et al., 1975, p. 189). The score of the MMSE is the sum of the correct responses up to a maximum of 30 points. The MMSE test itself consists of two parts. The first part requires oral responses only and assesses orientation, memory and attention. The second part evaluates language ability including writing a sentence, copying a polygon design, naming objects and following oral and written commands.

Folstein et al. (1975) tested validity by examining age effects. Mean scores for patients with depression under 60 years of age was 24.5, and 25.7 for patients over 60 years old. These were not significantly different. The Pearson  $r$  was used to assess interrater reliability on both a 24 hour test-retest by a single examiner ( $r = 0.887$ ) and a 24 hour test-retest by two examiners ( $r = 0.827$ ) (Folstein et al., 1975). Elderly patients with diagnoses of dementia, depression with cognitive impairments and depressed affect formed a continuum of MMSE scores. The mean scores for these groups were 9.7, 19.0 and

25.1 respectively (Gallo, Reichel, & Andersen, 1995). This study demonstrated a consistency between MMSE scores and clinical opinion.

Folstein et al. (1975) defined dementia as “a global deterioration of intellect in clear consciousness” (p. 190). Gallo et al. (1995) used an MMSE score of 9 or less to reflect this definition. This definition may be too restrictive. In this study, respondents were divided into two groups. One group consisted of those who scored 19 or less on the MMSE, indicating some degree of dementia, depression or other cognitive impairment. The other group included those scoring 20 or more. This group’s cognitive ability more closely resembles the community sample in Reed’s (1991a) study.

The researcher did not repeat reliability and validity for this study. However, the researcher had been trained in the use of this instrument and applied the test consistently with all subjects. Some participants may have felt some anxiety at the prospect of being tested. However, the researcher readily assured participants with statements such as, “Some of the questions may be very easy and others may be very difficult. Please understand that I am not trying to trick or fool you in any way. It is only important that you do the best you can.”

Boston 10 x 2 (depression) scale. This study used the Boston 10 x 2, a 10 item short form of the Center for Epidemiological Studies Depression Scale (CES-D), to measure depressive symptomology as a primary indicator of the absence of well-being in the elderly (Blazer et al., 1987) (Appendix C). Reed’s (1991a) study used the 20 item CES-D to measure depression. The CES-D was developed for large-scale studies from previously validated depression scales (Radloff, 1977). Unlike other instruments used for clinical diagnosis, the original CES-D indexes only current symptoms and it contains only

two somatically based items. Kohout, Berkman, Evans and Cornoni-Huntley (1993) reviewed several studies using the CES-D and found internal consistency of .80 or better. Factor-analytic studies cited in Kohout et al. (1993) identified four relatively invariant factors: depressed affect, positive affect, somatic complaints, and interpersonal problems. However, Kohout et al. (1993) found that the 20 item forced-choice scale presented some problems for elderly respondents who were confused by the format, even given a prompt card of the four response options: “rarely or none of the time,” “some or little of the time,” “occasionally or a moderate amount of time,” and “most or all of the time.” Pretests of the 20-item instrument also indicated that the CES-D was sometimes emotionally stressful for respondents experiencing depressive symptoms, such that they refused to answer all of the questions (Kohout et al., 1993).

Two briefer forms of the CES-D were developed as part of a large-scale multi-site project entitled “Established Populations for Epidemiological Studies of the Elderly” which began in 1982. Research teams at the University of Iowa and the East Boston Neighborhood Health Center each developed a briefer CES-D form. Kohout et al. (1993) found by using Cronbach’s alpha statistics that both briefer forms retained acceptable levels of internal consistency. The factor structures indicate that they tap the same four symptom factors as does the CES-D. Scores generated by the two briefer forms can also be compared to scores on the CES-D. One of the two briefer forms, the Boston 10 x 2, is so named because respondents are asked only to answer “yes” or “no” to the question of whether or not the respondent felt this way during the past week for each of the 10 standard statements. Responses are recorded and summed over the 10 items, then multiplied times six to reach an equivalent CES-D score. Using this methodology,

individual scores can range from 0 to 60. A score of 16 or more is used to indicate clinical depression (Kohout et al., 1993).

The reliability of the Boston 10 x 2 was .80, which was slightly above the other short form reliability of .76. Therefore, the Boston short form was used for this study to provide elderly respondents with a simpler and more acceptable response format and reduce the potential for inducing emotional stress. The reliability coefficient of the Boston 10 x 2 in this study was .76 as estimated by Kuder-Richardson-20 (KR-20).

Self-transcendence scale (STS). The STS developed by Reed (1991a) and used in this study with permission (Appendix D) measures developmental abilities rather than decremental experiences of aging. The STS measures self-transcendence, a major psychosocial resource of developmental maturity. It is a unidimensional scale, consisting of 15 items that together identify intrapersonal, interpersonal and temporal experiences characteristic of later life. A sample of the items includes: “sharing my wisdom and experience with others,” “helping younger people or others in some way,” and “finding meaning in my past experiences” (Reed, 1991a, p. 6). The items were developed to measure the older adult’s level of experiencing specific cognitive, creative, social and introspective developmental abilities and in so doing to derive a sense of well-being, regardless of physical ability or level of health.

Respondents were asked, in interview format, about the degree to which they experience each item in their current life. A 4-point scale forced responses from 1 for “not at all” to 4 for “very much.” Individual scores can range from 15 to 60. The average final score reflects overall level of self-transcendence, because a low score on one item may be offset by a high score on another item.

The STS is based on a 36-item scale, the Developmental Resources of Later Adulthood (DRLA) scale (Reed, 1986). Forty-five percent to 80% of the variance in the DRLA in previous research was identified as self-transcendence. Therefore, the STS was constructed specifically to measure self-transcendence with less redundancy, more appropriate scaling, and improved ease of administration for older or ill adults. Reliability as estimated by Cronbach's alpha ranges from .80 (Reed, 1991a) to .93 (Reed, 1989). Secondary analysis of data across three time periods indicated that test-retest reliability using Heise's model was .95 (as cited in Reed, 1991a). The reliability coefficient in this study was .75. Reed (1991a) found support for construct validity in the relationship of STS scores to other measures of the developmental resource, self-transcendence, and in groups who scored as theorized on the STS in reviewed studies.

Self-transcendence importance scale (STIS). The STIS, named by this researcher for ease of reference, was designed based on the same 15 items as the STS. Reed (1989) first developed the STIS for testing the content validity of the DRLA (the precursor of the STS). Like the DRLA-Importance scale (DRLA-I), the STIS is designed to measure the importance of each STS item to the respondent, regardless of whether the respondent has actually experienced that item. Respondents were asked, in interview format, about how important each item was to them at this time in their lives. A 3 point scale forced responses from 1 for "not at all" to 3 for "very important." Individual scores can range from 15 to 45. The STIS was used to test the third hypothesis, as well as provide further data on the construct validity of the STS. Neither reliability nor validity data for the DRLA-I nor the STIS could be located in the literature. The reliability coefficient of the STIS in this study was .74 as estimated by Cronbach's alpha.

## Procedure

Procedures for data collection and management were reviewed and approved by the Human Research Review Committee (Appendix E) to insure informed consent and protection of the rights of human subjects. This researcher arranged with the licensed nursing home to be on-site at times that were least disruptive to residents' daily routines. The nursing home staff provided a comprehensive list of residents, including birth dates and type of unit (long term care or sub-acute). A table of random numbers was used to reorder the names of those 80 years old or older. Those residents from the long term care units were re-ordered first. Randomly selected residents from the sub-acute units were added in order to achieve an adequate sample size. This researcher approached residents in the order determined by the random numbers and type of unit over a 10 week period. Each potential participant who did not have a guardian noted in the clinical chart, was able to hear adequately and could communicate orally was asked to listen to an explanation of the research project (Appendix F). All residents who were willing to participate signed an Information/Consent form (Appendix F) or gave oral permission to the interviewer to proceed.

After receiving consent, the researcher began by asking questions from the personal data survey of each respondent in order to establish rapport. Then each participant was requested to respond to the standardized questions on the MMSE, the CES-D, the STS, and finally the STIS, in that sequence. For those scoring 19 or less on the MMSE, the researcher concluded the interview at that point and thanked the respondent. The interviewer recorded all responses on the appropriate data collection forms. The process continued down the randomly ordered list until at least 50 residents

were able to score 20 or more on the MMSE and complete the other three instruments. In all, 65 residents participated. The maximum interview time was less than 45 minutes for a complete individual interview. Participants with diminished energy level or ability to concentrate were offered an opportunity to complete the interview within the subsequent 24 hour period. However, all of the participants were able to complete the survey in one sitting.

**CHAPTER 4**  
**DATA ANALYSIS**

**Characteristics of the Population**

Limited information was available to describe the characteristics of the 172 oldest-old adults in the target population. The age of these residents averaged 86.5 years with a range of 80 – 103 years. The average age on the long term care units was 87.0 years (range 80 – 103 years). On the sub-acute units, the average age was 85.5 (range 80 – 101 years). Males (n = 43) made up 25% of the total population and females (n = 129) made up the remaining 75%. See Table 2 for distribution of subjects by sex and type of unit.

Table 2

**Characteristics of the Target Population by Type of Unit and Sex**

	<u>Long Term Care Unit</u>		<u>Sub-acute Unit</u>		<u>Total</u>	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
	<u>n</u>	%	<u>n</u>	%	<u>n</u>	%
Male	29	17	14	08	43	25
Female	85	49	44	26	129	75
Total	114	66	58	34	172	100

Approximately 94% of the residents on the long term care units had low enough incomes to qualify for Medicaid insurance coverage. All residents from sub-acute units



had Medicare insurance to cover the costs of their stays. Therefore no financial status data were available for the sub-acute population.

### Characteristics of the Sample

The sample for this study consisted of the 51 respondents who scored 20 or more on the MMSE, the criterion used for inclusion in the study. These participants represented 30% of the original target population. They closely resembled the target population in age, sex and financial status. The age of the subjects in the sample ranged from 80 –101 years ( $M = 86.5$ ,  $SD = 4.8$ ). See Table 3 for a description of the sample based on sex, financial status, marital status and religious preference. The 1:3 ratio of males to females remained fairly consistent by unit in both the population and the sample.

Most participants had limited income, were widowed and described themselves as having a Protestant religious preference. The years of education for this sample ranged from 0 – 18 years ( $M = 10.8$ ,  $SD = 3.0$ ). Most respondents ( $n = 16$ ) had a high school education (mode = 12 years). Eighty percent ( $n = 45$ ) were Caucasian; 12% ( $n = 6$ ) were Black. No other ethnic groups were identified in this sample.

Forty (78%) of the participants in the sample described themselves as having an average or better general health condition, even though the number of major health problems reported ranged from 1 to 5. See Table 4 for the distribution of major health problems. Participants took between three and 18 different medications per day ( $M = 7.4$ ,  $SD = 2.6$ ). Forty-seven percent ( $n = 24$ ) had been bed-ridden at some time in the past six months, and 47% ( $n = 24$ ) had been hospitalized during the same period. Residents in this sample had been selected from both long term care units and sub-acute units. The two groups were compared using a separate variance t-test. The only significant differences

Table 3

**Distribution of Subjects (n = 51) by Type of Unit, Sex, Financial Status, Marital Status, and Religious Preference**

Class	Long Term Care Unit		Sub-acute Unit		Total	
	Frequency <u>n</u>	Percent %	Frequency <u>n</u>	Percent %	Frequency <u>n</u>	Percent %
<b>Sex</b>						
Male	7	14	5	10	12	24
Female	26	51	13	25	39	76
<b>Financial Status</b>						
Dependent	10	20	2	4	12	24
Limited	18	35	6	12	24	47
Secure	5	10	8	15	13	25
Unsure	0	0	2	4	2	4
<b>Marital Status</b>						
Single	4	8	1	2	5	10
Married	1	2	4	8	5	10
Sep./Div.	4	8	0	0	4	8
Widowed	24	47	13	25	37	72
<b>Religious Pref.</b>						
Catholic	5	10	3	6	8	16
Protestant	25	49	14	27	39	76
Other	1	2	0	0	1	2
None	2	4	1	2	3	6

between these two groups were length of stay ( $t = 3.73$ ;  $df = 32.0$ ;  $p = .001$ ) and MMSE scores ( $t = -2.01$ ;  $df = 49$ ;  $p = .05$ ). See Table 5 for detailed length of stay information and Table 6 for MMSE scores.

**Hypotheses Testing**

Each of the three hypotheses in this study was tested and reported using appropriate statistics generated by SPSS software.

Table 4

Frequency Distributions of Major Health Problems (n = 51)

Major Health Problems	Frequency <u>n</u>	Percent %
Cardiovascular Disease	44	86.3
Arthritis	23	45.1
Respiratory Disease	13	25.5
Diabetes	5	9.8
Cancer	5	9.8
Other(s)	46	90.2

Table 5

Length of Stay in Weeks by Type of Unit

	Long Term Care Unit	Sub-acute Unit	Total
Mean	81.1 ( <u>SD</u> = 122.5)	1.5 ( <u>SD</u> = .86)	53.0 ( <u>SD</u> = 105.3)
Median	52	1.5	14.0
Range	2 – 595	0 – 3	0 – 595

Hypothesis 1. Descriptive statistics support Hypothesis 1, which states: Oldest-old individuals living in a dependent care setting will identify some experiences of self-transcendence in their current lives. All participants experienced some degree of self-

Table 6

Group Scores on Instruments by Type of Unit

Instrument	<u>n</u>	<u>M</u>	<u>SD</u>	Range	Range Possible
<b>Long Term Care</b>					
MMSE	33	24.5	2.9	20 – 30	0 – 30
Boston 10 x 2	33	17.8	13.8	0 – 48	0 – 60
STS	32	46.9	6.1	36 – 56	15 – 60
STIS	32	40.0	3.5	32 – 45	15 – 60
<b>Sub-acute</b>					
MMSE	18	26.2	2.8	21 – 30	0 – 30
Boston 10 x 2	18	22.7	12.6	6 – 48	0 – 60
STS	18	48.4	3.9	42 – 55	15 – 60
STIS	17	40.4	3.0	32 – 44	15 – 60
<b>Combined</b>					
MMSE	51	25.1	3.0	20 – 30	0 – 30
Boston 10 x 2	51	19.5	13.5	0 – 48	0 – 60
STS	50*	47.5	5.4	36 – 56	15 – 60
STIS	49**	40.2	3.3	32 – 45	15 – 60

\*Note. One participant refused to respond to one STS item.

\*\*Note. Two participants refused to respond to two different STIS items.

transcendence, as demonstrated by a range in scores from 36 – 56 for the 50 respondents who completed this measure ( $M = 47.5$ ,  $SD = 5.4$ ) (Table 6). Inferential statistics were also used to test this hypothesis. Participants were divided into two age groups based on the median age of 87 years. The mean STS scores for the two groups was not significantly different using a pooled t-test ( $t = .41$ ;  $df = 48$ ;  $p = .68$ ). There was no significant difference ( $t = -1.03$ ;  $df = 47.1$ ;  $p = .31$ ) when mean STS scores were compared by type of unit (long term care and sub-acute). Neither was there a significant

difference ( $t = -.62$ ;  $df = 48$ ;  $p = .54$ ) when STS scores for those groups above and below the median MMSE score were compared using a pooled t-test.

The experiences of self-transcendence that respondents reported as most descriptive of themselves were: “accepting death as a part of life” ( $M = 3.73$ ,  $SD = .49$ ), “finding meaning in my spiritual beliefs” ( $M = 3.61$ ,  $SD = .60$ ), “letting others help me when I may need it” ( $M = 3.57$ ,  $SD = .61$ ) and “accepting myself as I grow older” ( $M = 3.45$ ,  $SD = .67$ ). The experiences of self-transcendence that respondents identified as least descriptive in ascending order included: “not dwelling on my past unmet dreams or goals” ( $M = 1.53$ ,  $SD = .81$ ), “helping younger people or others in some way” ( $M = 2.92$ ,  $SD = .82$ ), “having hobbies or interests I can enjoy” ( $M = 3.00$ ,  $SD = .98$ ) and “putting aside some things that I once thought were so important” ( $M = 3.06$ ,  $SD = .83$ ).

Hypothesis 2. This hypothesis states that there will be a significant inverse relationship between self-transcendence and depression among this population of oldest-old adults in dependent care. A Pearson  $r$  correlation ( $r = -.41$ ;  $p = .001$ ) provided support for this hypothesis. There was a significant moderate inverse relationship between depression and self-transcendence.

Hypothesis 3. Hypothesis 3 states that even oldest-old residents in dependent care settings with fewer experiences of self-transcendence will regard manifestations of self-transcendence as highly important in their lives. Scores on the STIS were high, ranging from 32 to 45 for the 49 respondents who completed this measure ( $M = 40.2$ ,  $SD = 3.3$ ). Inferential statistics were used to test this hypothesis. Based on the median STS score (47.5), two groups were identified. The low STS group ( $n = 23$ ) had a mean score on the STIS of 38.9 (range 32-44). The high STS group ( $n = 25$ ) had a mean STIS score of 41.3

(range 34–45). Clearly both groups rated self-transcendent experiences as important. However, the high STS group rated the importance of experiences of self-transcendence as significantly higher than the other group ( $t = -2.57$ ;  $df = 37.8$ ;  $p = .014$ ). Therefore Hypothesis 3 was partially supported.

The experiences of self-transcendence that respondents reported as most important to them were: “accepting death as a part of life” ( $M = 2.96$ ,  $SD = .20$ ), “letting others help me when I may need it” ( $M = 2.92$ ,  $SD = .27$ ), “finding meaning in my spiritual beliefs” ( $M = 2.92$ ,  $SD = .27$ ) and “having an interest in continuing to learn about things” ( $M = 2.92$ ,  $SD = .27$ ). Note that the first three items on this “most important” list were the same as three of the four most common experiences of self-transcendence from the STS results. The experiences of self-transcendence that respondents identified as least important included in ascending order: “not dwelling on my past unmet dreams or goals” ( $M = 1.31$ ,  $SD = .62$ ), “putting aside some things that I once thought were so important” ( $M = 2.54$ ,  $SD = .61$ ), “sharing my wisdom or experience with others” ( $M = 2.57$ ,  $SD = .61$ ) and “enjoying my pace of life” ( $M = 2.63$ ,  $SD = .60$ ).

#### Other Findings.

Even though participants in this study demonstrated a high level of self-transcendence, the level of depression ( $M = 19.5$ ,  $SD = 13.5$ ) was also high. Fifty-eight percent ( $n = 30$ ) of the respondents scored 18 or more, indicating clinical depression. See Table 6 for a comparison of Boston 10 x 2 (depression) scores by type of unit. Participants on the sub-acute units were slightly more depressed than those on long term care units, but not significantly ( $t = -1.24$ ;  $df = 49$ ;  $p = .222$ ). The participants in the clinically depressed group ( $n = 30$ ) had slightly lower MMSE scores ( $M = 24.7$ ,  $SD = 2.9$ )

than the 21 participants in the less depressed group ( $M = 26.7$ ,  $SD = 2.0$ ). This difference was not statistically significant ( $t = 2.6$ ;  $df = 45$ ;  $p = .01$ ). No other differences were significant when the clinically depressed were compared to those who were less depressed.

### Comparative Study Findings

From its inception, this study was conducted as a partial replication of a study by Reed (1991a) of oldest-old adults. The purpose of both of these studies was to increase knowledge of the potential significance of self-transcendence as a correlate of mental health in oldest-old adults at the end of life. Therefore, it is important to look at the comparison of these two studies in detail.

The sample in this study of nursing home residents was similar in many ways to Reed's (1991a) sample of oldest-old adults living independently in the community. Predictable differences in cognitive abilities between the two groups were controlled for. Participants in Reed's study presumably had minimal, if any, cognitive impairments, whereas nursing home populations include older adults with dementia approximately 50% of the time (Hooyman & Kiyak, 1996). There is some evidence (Ward, Wadsworth, & Peterson, 1994) that self-report tests of depression can be used effectively with older adults who would normally be excluded because of cognitive deficits. However, to assure that the groups in both studies were cognitively comparable, the Mini-Mental Status Exam (MMSE) (Folstein et al., 1975) screening tool was used in the current study. Nursing home residents with scores of 19 or less (out of 30) were not included in the sample.

See Table 7 and Table 8 for a comparison of the characteristics of the two groups. All participants in both studies were at least 80 years old. Those in Reed's (1991a) study were presumably all Caucasian, while the ethnic mix of the current study was 88%

Table 7

**Comparison of Age, Educational Levels and Perceived Financial Status in Participants of Replicated (n = 55) and Current Study (n = 51)**

	Reed's (1991a) Study	Current Study
Age range (years)	80-97	80-103
Mean age (years)	88.0 (SD = 11.33)	86.5 (SD = 4.8)
Years of education	13.0 (SD = 3.73)	10.8 (SD = 3.0)
Perceived financial status*	2.45 (SD = unknown)	1.92 (SD = 0.75)

\*Note. Using a scale of 1 to 3 with 1 representing "dependent" and 3 representing "secure"

Table 8

**Comparison of Sex, Marital Status and Religious Preference in Participants of Replicated (n = 55) and Current Study (n = 51)**

Characteristics	Reed's (1991a) Study		Current Study	
	Frequency <u>n</u>	Percent %	Frequency <u>n</u>	Percent %
<b>Sex</b>				
Male	19	35	12	24
Female	36	65	39	76
<b>Marital Status</b>				
Single	6	11	5	10
Married	22	40	5	10
Separated/Divorced	--	--	4	8
Widowed	27	49	37	72
<b>Religious Preference</b>				
Catholic	7	13	8	16
Protestant	41	75	39	76
Other	7	12	1	2
None	--	--	3	6



Caucasian and 12% Black. Those in the current study were somewhat less educated and poorer. The differences in perceived financial status between the two groups may not be reliable. As residents of a nursing home, participants in the current study had most of their living expenses paid by Medicare or Medicaid. During the interview process, it was noted by this researcher that describing their financial status in terms of “dependent,” “limited,” or “secure” was not something many of these participants could easily relate to.

There were proportionately more females in the nursing home group than in the community group. Since women generally outlive men, perhaps having more women in the nursing home group also explains the differences in marital status between the two groups. Seventy-two percent of the nursing home group were widowed, while only 49% of those in the community group had outlived their spouse, and 40% in the community group were still married.

Most respondents in both studies described themselves as Protestant. Everyone from the community group had some type of religious preference. Only 6% ( $n = 3$ ) of the respondents in the current study did not have a religious preference.

As expected, nursing home respondents in the current study had more physical health problems than the community-based respondents in Reed’s study. Using a 5-point scale ranging from 1 for poor health to 5 for excellent health, Reed’s (1991a) general health status mean score was 3.5. In the current study, the mean score using the same scale was 3.0 ( $SD = .97$ ). Most respondents in Reed’s (1991a) sample identified themselves as having 1 or 2 health problems (e.g. cardiovascular, arthritis, respiratory, etc.), while the respondents in the nursing home identified many more chronic illnesses

( $n = 2.7$ ,  $SD = .97$ ). The nursing home group also took significantly more medications ( $n = 7.4$ ,  $SD = 2.6$ ) compared to “2 to 4” medications per person in Reed’s (1991a) study (p. 6).

Both studies found high levels of self-transcendence and an inverse relationship between self-transcendence and depression. The Pearson  $r$  correlation indicated significant inverse relationships between self-transcendence and depression in both the community group ( $r = -.33$ ,  $p < .01$ ) and in the current study ( $r = -.41$ ,  $p = .001$ ). See Table 9 for a comparison of the testing scores in the two studies. Finding that the same

Comparison of Self-Transcendence and Depression Scores in Participants of Replicated ( $n = 55$ ) and Current Study ( $n = 51$ ).

Instrument	Reed’s (1991a) Study	Current Study
<b>Self-Transcendence Scale</b>		
<u>M</u>	49.5	47.5
<u>SD</u>	7.2	5.4
Range	28.5 – 58.5	36 – 56
Range Possible	15 – 60	15 – 60
<b>Depression Scale*</b>		
<u>M</u>	10.6	19.5
<u>SD</u>	8.1	13.5
Range	0 – 31	0 – 48
Range Possible	0 – 60	0 – 60

\*Note. CES-D was used in Reed’s Study; Boston 10 x 2 was used in Current Study.

relationship between self-transcendence and depression existed in both studies demonstrates a high degree of external validity.

## CHAPTER 5

### DISCUSSION AND IMPLICATIONS

#### Discussion

**Hypotheses.** Results of this study of nursing home residents, all over age 80, provide support for Reed's (1991b) developmental theory of self-transcendence as a correlate of mental health in the oldest-old. Hypothesis 1 was supported. All participants experienced a moderately high degree of self-transcendence ( $M = 47.5$ ,  $SD = 5.4$ ). There were no significant differences in levels of self-transcendence when participants were compared by type of unit (sub-acute or long term care), age, or cognitive ability. Participants described themselves as experiencing several manifestations of self-transcendence to a high degree. The specific interpersonal and intrapersonal experiences representing manifestations of self-transcendence that were identified most often included: accepting death as a part of life, finding meaning in spiritual beliefs, letting others help when help was needed, and accepting one's self growing older. These results exemplify the process of "letting go" of conceptual boundaries. Younger adults or those not anticipating death would be expected to experience these things differently.

Experiences of self-transcendence that were found to least describe this group of oldest-old adults included: putting aside some things that once seemed important, having hobbies or interests to enjoy, helping younger people or others in some way and not dwelling on past unmet dreams or goals. The importance of these least descriptive experiences may have been simply the result of limitations in the nursing home

environment. Participants may have tended to deem some things less important if they felt these things had already happened or could never happen.

Hypothesis 2 was also supported. The level of self-transcendence was inversely related to the level of depression. In other words, the higher the level of experiences of self-transcendence, or developmental maturation, the lower the level of depression. In this study, well-being was measured in its absence by measuring its opposite affective state, depression. By inference, then, self-transcendence was positively correlated with well-being.

Hypothesis 3 was partially supported. Oldest-old residents in this dependent care setting did regard manifestations of self-transcendence as highly important in their lives. However, the average score on the STIS ( $M = 40.2$ ,  $SD = 3.3$ ), while relatively high, was lower than the average STS score ( $M = 47.5$ ,  $SD = 5.4$ ). This researcher had anticipated that the STIS scores would be higher than the STS scores. The assumption was that participants would value the theoretical concepts of self-transcendence even though there might not be opportunity in the nursing home setting to actually experience manifestations of it. This assumption was shown not to be valid in this study.

One explanation of this finding is that the STIS was the last instrument administered to each participant. Participants may not have understood the somewhat subtle distinction between the STS and the STIS, or they may have been too tired to put as much thought and energy into their STIS responses.

A second more conceptual explanation for this finding may lie in the nature of self-transcendence itself. If participants had already attained a relatively high level of self-transcendence, perhaps they had already let go of goals of achieving higher levels of

well-being. Perhaps they were instead simply accepting their fate in life as they had come to know it in the nursing home.

The fact that participants with the highest self-transcendence scores also valued the importance of experiences of self-transcendence most highly was not surprising. This finding does not detract from support for the theory. High “importance” scores tend to support construct validity of the self-transcendence scale.

Other findings. The most surprising result of this study was the high level of depression found in this population. Fifty-eight per cent of the respondents (n = 30) scored 18 or higher on the Boston 10 x 2, indicating clinical depression. This finding is significantly higher than the 25% rate of major depression found in other nursing home studies (Ahmed & Takeshita, 1996/1997; National Institutes of Health Consensus Development Conference, 1991; Parmelee, Katz & Lawton, 1992). No concrete demographic data could be found to explain the higher rates of depression in this population compared to other nursing home populations. Other researchers have found that advanced age (Newmann, 1989), multiple medical co-morbidities, poor social support (Ahmed & Takeshita, 1996/1997; Rossen & Buschmann, 1995), polypharmacy, female gender, widowhood, and adverse life events (Ahmed & Takeshita, 1996/1997) may be factors in higher depression rates. Increasing physical disability, economic status changes and low educational levels may be other factors (Rossen & Buschmann, 1995). Genetic predisposition is another potential reason for variations in depression (Rossen & Buschmann, 1995; National Institute of Mental Health, 1991).

The high depression rate in this study raises important issues about the definition of depression as an affective state opposite that of well-being. Perhaps depression is not

merely a clinically dysfunctional failure to trade away old behaviors and perceptions and acquire new resources, as Reed's theory suggests. Perhaps the depression found in this study could also be medically diagnosed disease or mental illness based on symptom criteria from the American Psychiatric Association as outlined in the *Diagnostic and Statistical Manual of Mental Disorders* (1994) (fourth edition) (DSM-IV). The DSM-IV methodology acknowledges the "physical" components of many "mental" disorders, including depression. If the level of depression in this study is defined as illness and not as a state opposite that of well-being, then depression and well-being could co-exist (Newman, 1994). According to Newman (1994), health is a state of expanding consciousness within the context of illness.

The review of the literature offers another potential explanation for the high rate of depression. In 1986, Reed studied mentally healthy and clinically depressed older adults longitudinally. Developmental resources decreased depressive symptoms in the mentally healthy group. However, in the depressed group, the finding was the reverse. Depression tended to influence developmental resources, although no significant causal tendencies were found. The findings led Reed to speculate that other factors may contribute more to subsequent depression levels once an individual becomes depressed than do developmental resources. The subjects in the current study may have been depressed prior to or soon after admission to the nursing home, such that developmental resources could not alleviate the depression.

#### Comparison to Other Studies

With the exception of higher than expected rates of depression and lower than expected STIS scores, the results of this study of self-transcendence are consistent with

findings from other research (Reed, 1986; 1989; 1991a). As noted in Chapter 4, the comparison of the current study to Reed's (1991a) study of oldest-old adults is especially important. First, the theoretical proposition that self-transcendence is a correlate of mental health in adults over 80 years old was supported in the two different populations. Taken together, these studies increase the generalizability of Reed's (1991b) theory. Second, the manifestations of self-transcendence in the oldest-old are only slightly dependent on the type of residential setting, i.e., nursing home or community. Neither do they seem too dependent on physical health status. Third, the amount of depression in the nursing home group was much greater than that found in Reed's study. The reasons for this difference are only speculation. The comparison of the two groups did find that the oldest-old in the current study had more physical health problems, fewer years of education and a lower perceived financial status. There were also fewer married people and proportionately more females in this study than in Reed's (1991a) study. Participants in the nursing home group may have been depressed prior to admission to the nursing home. They may have experienced more loss (conflict) in their lives than the other group. Or the process of moving to and living in the nursing home environment may not have enabled them to "let go" of earlier personal conceptual boundaries.

#### Limitations of the Study

There were two major limitations of this study. First, the relatively small sample size of this study limits its generalizability, particularly with regard to sample characteristics (e.g., ethnic background). The sample in this study were oldest-old adults from a single, large, county-owned facility in the mid-west. Medicare and Medicaid paid for most of the care. This profile may not represent other nursing home residents with

higher income levels, those living in small rural area nursing homes, or those in more ethnically diverse urban communities. Second, the cross-sectional and correlational nature of the data does not lend itself to establishing cause and effect relationships between the event(s) that impact conceptual boundaries and subsequent depression or well-being. For instance, knowing the level of depression prior to or at least at the time of admission to the nursing home could have added valuable insights into this study.

### Implications for Nursing

Clinical practice. The findings of this study are significant for geriatric nurses and other disciplines in the nursing home practice setting. Reed's theory of self-transcendence provides a useful theoretical base to unite the multidisciplinary team in planning effective care. Although this study did not explore clinical interventions per se, it does suggest a new wholistic health paradigm of care for nursing home patients. Efforts to consciously promote self-transcendence through innovative therapies and new ways of communicating with and caring for oldest-old adults can be explored. The effectiveness of nurse led group psychotherapy in facilitating self-transcendence has been demonstrated (Young & Reed, 1995). More emphasis should be placed on companionship and promoting spiritual growth instead of primarily attending to physical care needs of residents. The Eden Alternative (Thomas, 1996), for example, offers a strikingly simple yet effective approach to enlivening nursing home environments and eliminating unnecessary medical therapies. The Eden principles provide ideas for ways to reduce loneliness, helplessness and boredom by promoting continuing contact with pets, plants, children and others. Encouraging activities such as meditation, self-



reflection, visualization, religious expression, peer counseling or journal keeping may promote well-being.

The results of this study also reinforce the importance of geriatric nurses' assessing and planning interventions for the treatment of depression. Depression, if properly diagnosed, is a treatable disease. Left unrecognized and untreated, it will perpetuate the myth that profound sadness is an inherent part of growing old in a nursing home. Perhaps new care paradigms like the Eden Alternative can reduce or even prevent some depression in the future.

Administrative practice. The development of the theory of self-transcendence is also important to long term care administrators. Good theories provide frameworks for making important choices and undertaking critical tasks to help individuals and organizations grow and succeed (Henry & Arndt, 1989, p. 1). Reeds' (1991b) developmental theory of aging has implications for organizational planning, staffing, staff development, team building, patient outcomes and marketing. Administrators should investigate the Eden Alternative (Thomas, 1996), or other new ways of conceptualizing their care delivery systems. Employees could be taught new ways of relating to residents. Increased job satisfaction could mean decreased turnover of staff. Assigning cognitively alert residents to share rooms could facilitate mutual care and concern.

Nursing education. As the population of oldest-old adults increases, so will the need for changes in geriatric nursing education. Nurses at all levels of educational preparation will need to understand that older adults require more than good physical care. Educators will need to incorporate more information about mental health and spiritual care assessment and intervention into curriculum plans. Not only will long term

care nurses need this information, but nurses from other clinical settings will need it as well.

### Recommendations for Future Research

This study has demonstrated that research in a nursing home population is not only feasible, but also important to nurses' efforts to improve quality of life for this population. Life span developmental theory including Reed's theory of self-transcendence provides at least one framework for future studies. Screening tools such as the MMSE can be used effectively in screening for dementia. Instruments are available or could be adapted for use with this special population. The residents themselves in this study were willing participants. Lastly, the results that were obtained provide a solid foundation for future studies.

Replication studies in a variety of nursing homes could test for variations related to financial status, ethnicity, marital status, etc. Other instruments could be developed to test well-being and/or depression. Religious group preference could be refined to look more closely at the concept of spirituality and its relationship to well-being.

The concept of depression also warrants further research, especially in the oldest-old. Definitions of depression are still vague. Confounding factors such as dementia, physical co-morbidities and medications could be investigated. Diagnostic or screening tools could be compared for most effective use in this age group. Effective preventative and/or treatment interventions could also be explored further. Longitudinal studies are needed to examine the role that aging plays in the onset or course of depressive symptomology. Longitudinal studies assessing depression along with self-transcendence in dependent care settings would continue to test Reed's (1991b) theoretical framework.

In closing, this study has shown that oldest-old adults, even in a nursing home setting, have resources within themselves that can help maintain or even improve mental health in later life. The evidence is mounting that there is a “human propensity toward transcendence” (Reed, 1987, p. 335). The findings of this study are very encouraging. The challenge ahead will be to learn more about the process of expanding one’s conceptual boundaries in old age beyond a preoccupation with physical changes.

## **APPENDICES**

**APPENDIX A**

**Personal Data Survey**

**Personal Data Survey**

- |  |                    |     |     |               |
|--|--------------------|-----|-----|---------------|
| 1. Subject number  | ___                | ___ | ___ | ( 1,2,3)      |
| 2. How old were you on your last birthday?                                 | ___                | ___ | ___ | ( 5,6,7)      |
| 3. Gender? (Circle digit beside number)                                    | male               | 1   |     |               |
|  | female             | 2   |     | ( 8 )         |
| 4. Are you (circle digit)  | single             | 1   |     |               |
|  | married            | 2   |     |               |
|  | separated/divorced | 3   |     | ( 9 )         |
|  | widowed            | 4   |     |               |
| 5. How many years of education did you complete?                           | ___                | ___ |     | ( 10,11)      |
| 6. What is your ethnic background? (circle digit)                          | Caucasian (white)  | 1   |     |               |
|  | Black              | 2   |     |               |
|  | Hispanic           | 3   |     | ( 12 )        |
|  | Native American    | 4   |     |               |
|  | Asian              | 5   |     |               |
|  | other              | 6   |     |               |
| 7. What religious group do you most strongly identify with? (circle digit) | Catholic           | 1   |     |               |
|  | Protestant         | 2   |     |               |
|  | Jewish             | 3   |     | ( 13 )        |
|  | Other              | 4   |     |               |
|  | None               | 5   |     |               |
| 8. How would you describe your current financial status? (circle digit)    | dependent          | 1   |     |               |
|  | limited            | 2   |     | ( 14 )        |
|  | secure             | 3   |     |               |
| 9. How long have you been a resident here at Kent Community?               | ___                | ___ | ___ | (15,16,17,18) |

Personal Data Survey  
Page 2

10. Please identify whether or not you have any of these major health problems (circle digit)

	No	Yes	
Cardiovascular disease	0	1	( 19 )
Respiratory disease	0	1	( 20 )
Diabetes	0	1	( 21 )
Arthritis	0	1	( 22 )
Cancer	0	1	( 23 )
Other	0	1	( 24 )

11. How would you describe your general health condition? (circle digit)

poor	1	
	2	
average	3	( 25 )
	4	
excellent	5	

12. How many different medications are you currently taking?    \_\_\_ \_\_\_    ( 26,27 )

13. Have you been bedridden in the past 6 months? (circle digit)

yes	1	
no	0	( 28 )

14. Have you been hospitalized in the past 6 months? (circle digit)

yes	1	
no	0	( 29 )

15. Type of unit: (circle digit)

long term care	1	
sub-acute (6 <sup>th</sup> floor)	0	( 37 )

**APPENDIX B**

**Mini-Mental State Examination**



# Mini-Mental State Examination

Patient's Name: \_\_\_\_\_ Patient # \_\_\_\_\_  
Examiner's Name: \_\_\_\_\_ Date: \_\_\_\_\_

Patient Score	Maximum Score	
		<b>Orientation</b>
_____	5	What is the (year) (season) (date) (day) (month)?
_____	5	Where are we (country) (state) (county) (city) (clinic)?
		<b>Registration</b>
_____	3	Name three objects, allotting one second to say each one. Then ask the patient to name all three objects after you have said them. Give one point for each correct answer. Repeat them until he hears all three. Count trials and record number.
		APPLE. . . BOOK. . . COAT                      Number of trials _____
		<b>Attention and Calculation</b>
_____	5	Begin with 100 and count backward by 7 (stop after five answers): 93, 86, 79, 72, 65. Score one point for each correct answer. If the patient will not perform this task, ask the patient to spell "WORLD" backwards (DLROW). Record the patient's spelling: _____ Score one point for each correctly placed letter.
		<b>Recall</b>
_____	3	Ask the patient to repeat the objects above (see Registration). Give one point for each correct answer.
		<b>Language</b>
_____	2	<b>Naming:</b> Show a pencil and watch, and ask the patient to name them.
_____	1	<b>Repetition:</b> Repeat the following: "NO ifs, ands, or buts."
_____	3	<b>Three-Stage Command:</b> Follow the three-stage command, "Take paper in your right hand: fold it in half and put it on the table."
_____	1	<b>Reading:</b> Read and obey the following: "Close your eyes" (show the patient the item written on the next page).
_____	1	<b>Writing:</b> Write a sentence (on the next page).
_____	1	<b>Copying:</b> Copy the design of the intersecting pentagons (on the next page).
_____	30	Total Score Possible

Adapted from Folstein MF, Folstein S, McHugh PR. Mini-mental state: a practical method for grading the cognitive state of patients for the clinician. J Psychiatr Res 1975; 12: 189-98.

Continued on next page

**CLOSE YOUR EYES**

**X** \_\_\_\_\_

**APPENDIX C**

**Boston 10 x 2 (Depression) Scale**

**Boston 10 x 2 (Depression) Scale**  
derived from the Center for Epidemiological Studies  
Depression Symptoms Index (CES-D)

Directions: Please indicate with a “yes” or a “no” after each statement whether or not you felt this way much of the time during the past week.

1. I felt depressed.	( 1 ) <u>Yes</u>	( 0 ) No
2. I felt everything I did was an effort.	<u>Yes</u>	No
3. My sleep was restless.	<u>Yes</u>	No
4. I was happy.	Yes	<u>No</u>
5. I felt lonely.	<u>Yes</u>	No
6. People were unfriendly.	<u>Yes</u>	No
7. I enjoyed life.	Yes	<u>No</u>
8. I felt sad.	<u>Yes</u>	No
9. I felt that people disliked me.	<u>Yes</u>	No
10. I could not get “going.”	<u>Yes</u>	No

Total number of underlined responses = \_\_\_\_\_

Multiply x 6 for equivalent long-form CES-D score = \_\_\_\_\_

Note: A score of 16 or above on the long form CES-D scale usually indicates clinical depression.

**APPENDIX D**

**Permission Letter to Use the Self-Transcendence Scale**

Request Form

I request permission to copy the Self-Transcendence Scale (STS) for use in my research entitled, Mental Health in Oldest-Old Adults: An Investigation of Self-Transcendence

In exchange for this permission, I agree to submit to Dr. Reed a copy of the following:

1. An abstract of my study purpose and findings, which includes the range of STS scores and the mean STS score in my group of participants, and correlations between the STS scale scores and other measures used in my study. (This will be used by Dr. Reed to assess construct validity).
2. The reliability coefficient as computed on the scale from my sample (Cronbach's alpha).
3. A copy of the one-page scoring sheet (see attached) for each participant tested or a computer print out listing this same information for each subject, along with my data coding dictionary (which identifies the variables on the print out).

Any other information or findings that could be helpful in assessing the reliability or validity of the instrument would be greatly appreciated (e.g. problems with items, comments from participants, other findings).

This data will be used to establish a normative data base for clinical populations. No other use will be made of the data submitted. Credit will be given to me in reports of normative statistics that make use of the data I submitted for pooled analyses.

[Redacted Signature]

(Signature)

February 27, 1996

(Date)

Position and Full Address

Marsha Harrison, BSN, RN

Graduate Nursing Student\*

2323 Thistledowne, N.E.

Grand Rapids, MI 49505-6319

\*Grand Valley State University

Permission is hereby granted to copy the STS for use in the research described above.

[Redacted Signature]

Pamela G. Reed

3-7-96

(Date)

Please send two signed copies of this form, and a stamped, self-addressed envelope to:

Pamela G. Reed, RN, PhD, FAAN  
College of Nursing  
University of Arizona  
Tucson, Arizona 85721

**APPENDIX E**

**Approval Letter from Human Research Review Committee**



GRAND VALLEY  
STATE UNIVERSITY

1 CAMPUS DRIVE • ALLENDALE, MICHIGAN 49401-9403 • 616/895-6611

July 16, 1998

Marsha Harrison  
2323 Thistledowne NE  
Grand Rapids, MI 49505-6319

Dear Marsha:

Your proposed project entitled "*Mental Health in Oldest-Old Adults: An Investigation of Self-Transcendence*" has been reviewed. It has been approved as a study which is exempt from the regulations by section 46.101 of the Federal Register 46(16):8336, January 26, 1981.

Sincerely,



Robert Hendersen, Chair  
Human Research Review Committee



**APPENDIX F**

**Information/Consent for Research Project Participants**

**Standard Script to be Used for Introducing the  
Information/Consent for Research Project Participants**

**“Hello. My name is Marsha Harrison. I am a registered nurse conducting a research study about older adults in order to complete my master’s degree program at Grand Valley State University. I would like to tell you about my study and invite you to participate.”**

## Information/Consent for Research Project Participants

The purpose of the research is to learn more about how older adults like yourself view some of the experiences you may be having at this time in your life. I hope that information gained from this study will be used to find ways to promote the health and well-being of people in nursing homes.

If you consent to participate in this study, you will first be asked to answer a few questions about yourself such as your age and years of education. Your consent would also allow me to look in your chart to verify this information in case you are not sure. Next I would be asking you a series of questions about how you think. Finally, there may or may not be some additional multiple-choice questions. It will take about 5-10 minutes to complete the first series of questions. If we continue with the other questions, the whole interview will take less than 45 minutes.

The names of those who participate will not be used. Instead, a code number will be used on all of the data forms to protect confidentiality. Reports of this study will only include group data.

My goal is to have 50 residents of Kent Community participate. You are eligible to participate if you are at least 80 years old and if you can hear me and can answer the questions. Your participation in this study is voluntary. You may withdraw at any time without affecting the care you receive from anyone at Kent Community. If you get tired and want to rest or have me come back later, you can let me know. If any questions I ask are in any way upsetting to you, Kent Community will have one of their staff talk with you. There are no other anticipated physical or emotional risks to you as a result of your participation in this study. There are also no direct benefits to you, other than generally helping us to learn more about better nursing home care.

If you have any questions about the information for project participants that I have just read, I can answer them for you now. (PAUSE) If you feel that you have an understanding of this research project and want to participate, please sign your name below. You may keep a copy of this Information/Consent form.

If you have any questions later, please contact me, Marsha Harrison, at (616) 363-4675. You may also contact Anne Forman, RN, at Kent Community if you have any concerns about this research, or Robert Henderson, the Chair of the Human Research Review Committee at Grand Valley State University, (616) 895-2195. We can begin the interview now, or I can come back in a little while.

\_\_\_\_\_  
Participant's Name

**X** \_\_\_\_\_  
Participant's Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Witness' Signature

Are you interested in receiving a summary of the study results?  Yes  No

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